



Multi Service Provider Access (MSPA)

- Independency and freedom to purchase tele- and content services
- Optimize network costs
- Based on transparent Ethernet technology
- Quality of Service assurance at highest level
- Offers a Service Level Agreement (SLA) among the best in the market
- Future proof investment in fibre based infrastructure
- Independent of IP addresses and configurations



Freedom of Choice

MSPA is an opportunity to establish own infrastructure to one or more of the GlobalConnect telehouses, from where a wealth of service providers are available for delivery of a broad range of services.

Service providers normally retain ownership of the infrastructure between the telehouse and the customer. This means that whenever new services are required from another service provider, a new connection is often also required, increasing the cost of accessing new services or changing existing ones. This is not the case when accessing services via MSPA, where the customer retains ownership of the connection to the telehouse.

Connect Multiple Service Providers

An MSPA may be delivered as several parallel connections, as an alternative to each service provider establishing independent access lines. This is an advantage e.g. when different services are being required from different providers.

Thus having an MSPA means increased freedom of choice between service providers. Without incurring new installation costs, a new service provider may be connected simply by connecting the MSPA to a new partner in the telehouse. A large number of service providers are just a patch cable away in the telehouse.

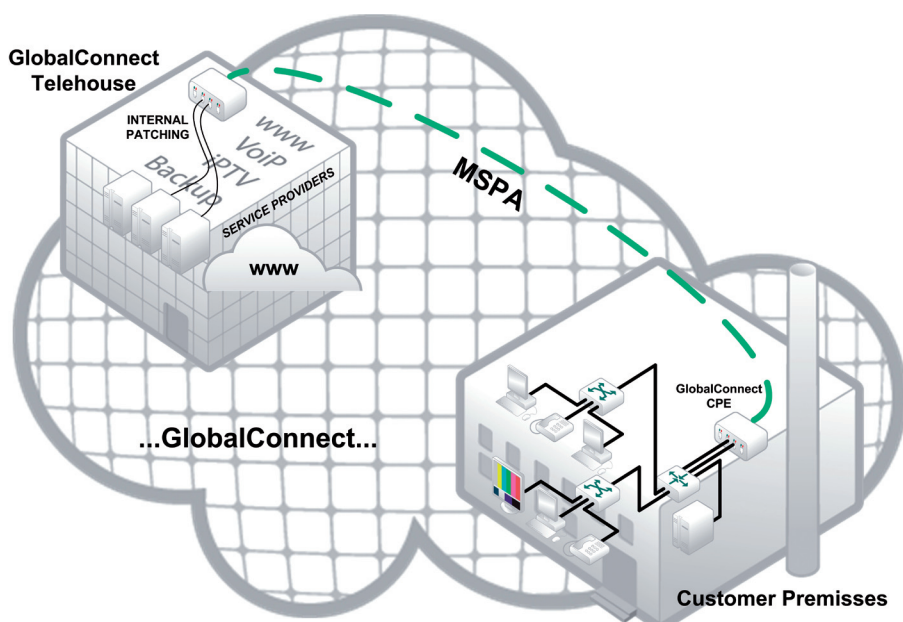


Figure 1: Multi Service Provider Access connects to multiple service providers at the telehouse

Dedicated connections with QoS guarantee.

MSPA is established via dedicated, guaranteed Carrier Ethernet connections between the customer site and the large telehouses. The individual connections are delivered on electrical or optical Ethernet interfaces, with selectable speeds ranging from 2Mbit/s to 10Gbit/s.

GlobalConnect offers the best available Quality of Service guarantee in the market, allowing an MSPA to be used also for the most sensitive services such as IP Telephony and real time video streaming. These guarantees are possible due to the Carrier Class non-overbooked network of GlobalConnect. Each connection is completely transparent for VLAN tags and most proprietary packet formats, enabling the customer to connect to a wide range of services. When the network has been established, it is easy, fast and cost efficient to upgrade if more bandwidth is desired.

Protection

If an MSPA has to be protected against fibre breach or breakdown of equipment, it is available with redundant connections, potentially also to different telehouses. Two separate ducts into the customer building are established, and the connection is terminated in one or two switches.

The connections are established with two times the dedicated bandwidth, and are routed redundantly in backbone – from start to end. The Service Level Agreement ensures that the solution has an availability guarantee of 99.7% for unprotected connections and 99.99% for protected connections, yielding the highest availability in the market.

Technical data	Properties of each individual MSPA connection
Customer interface	10/100/1000BaseT 1000BaseLX
Connector	RJ 45 or LC/PC
Bandwidths	10 - 100Mbit/s in steps of 10 Mbit/s 100Mbit/s - 1Gbit/s in steps of 100 Mbit/s
Latency	< 10 ms
Jitter	< 1ms
Packet Loss	< 0,01 %
Max. number of MAC- addresses	10.000
Protection available	Yes
Fail-over time when protected	200 ms
Availability per year, with / without protection	99.99% / 99.7%
Max. packet size	2000 Bytes
802.1Q VLAN transparency	Yes
Stakked VLAN transparency	Yes
BPDU transparency	Yes
802.1p transparency	Yes

